

HA

|                               |                        |                     |  |
|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 10/508,924             | MOTOYOSHI ET AL.    |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | Tram H. Nguyen         | 2818                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/31/2005.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>09/24/2004</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material                                    | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|  | 9. <input type="checkbox"/> Other _____   |

  
**David Nelms**  
 Supervisory Patent Examiner  
 Technology Center 2800

## **DETAILED ACTION**

### **Remarks**

1. Applicant's election of Group I, subspecies A claims 1-19 is acknowledged.

### **Examiner's Amendment**

2. An examiner's amendment to the record appears below. Should the changes and /or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.3.12. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. Authorization for this examiner's amendment was given in a telephone conversation with Attorney Robert J. Depke on 1/12/2006.

The application has been amended as follows:

Cancel the non-elected claims 20-38.

### **Reasons for Allowance**

4. Claims 1, 5, 9,10,14 and 16 would be allowed.

The following is an examiner's statement of reason for allowance:

None of the references of record teaches or suggests the claimed "magnetic memory device comprises a magnetic flux concentrator of high-permeability layer formed at least on the lateral sides of said first wiring and on the side of said first wiring which is opposite to the side facing said tunnel at least either of said

Art Unit: 2818

magneto-resistance element, with high-permeability layer formed on the lateral sides of said first wiring said first wiring toward said tunnel projecting from magneto-resistance element” as recited in claim 1. Nor limitations in the claim 5 wherein “a magnetic flux concentrator of high-permeability layer formed at least on the lateral sides said second wiring and on the side of said second wiring which is opposite to the side facing said tunnel magneto-resistance element, with at least either of said high-permeability layer formed on the lateral sides of said second wiring projecting from said second wiring toward said tunnel magneto-resistance element.”

Likewise, none of the references of record teaches or suggests the limitations in claim 9, which the “a magnetic flux concentrator of high-permeability layer formed between said first wiring and said tunnel magneto-resistance element and on the lateral sides of said tunnel magneto-resistance element, with an insulating film interposed.” And the limitations in claim 10 wherein “a first magnetic flux concentrator of high-permeability layer formed at least on both of the lateral sides of said first wiring and on the side of said first wiring which opposite to the side facing said tunnel element and a second magnetic flux magneto-resistance concentrator of high-permeability layer formed between said first wiring and said tunnel magneto-resistance element and on the lateral sides of said tunnel magneto-resistance element, with an insulating film interposed.”

Similar none of the references disclosed or can be combined to yield the claimed invention such as “the magnetic memory device comprises a magnetic flux concentrator of high-permeability layer formed at least on both of the lateral sides of said first wiring

Art Unit: 2818

and on the side of said first wiring which is opposite to the side facing said tunnel magneto-resistance element, with at least either of said high-permeability layer formed on the lateral sides of said first wiring projecting from said first wiring toward said tunnel magneto-resistance element” (claim 14). In addition the limitations of claim 16, wherein a magnetic flux concentrator of high-permeability layer formed at least on both of the lateral sides of said second wiring and on the side of said second wiring which is opposite to the side facing said tunnel magneto-resistance element, with at least either of said high-permeability layer formed on the lateral sides of said second wiring projecting from said second wiring toward said tunnel magneto-resistance element.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance”.

### **Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tram H. Nguyen whose telephone number is (571)272-5526. The examiner can normally be reached on Monday-Friday, 8:30 AM – 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax numbers for all communication(s) is (703)872-9306.

Art Unit: 2818

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1625.



David Nelms  
Supervisory Patent Examiner  
Technology Center 2800

THN

**Tram H. Nguyen**  
Art Unit 2818  
January 12<sup>th</sup>, 2006.